What is claimed is:

1. An OFDM receiving device for receiving an orthogonally frequency divided and multiplexed signals comprising:

a receiver for selecting an information channel to be received and receiving the RF signal of the selected information channel;

an orthogonal demodulator for orthogonally demodulating the signal received by said receiver and outputting an OFDM signal of a base band;

a Fourier transform section for performing an operation of Fourier transform on said OFDM signal of the base band and outputting an OFDM signal of a frequency domain;

a decoder for decoding said OFDM signal of the frequency domain; and

a frame synchronism control section for detecting the synchronism of transmission frames of said channel data and controlling the synchronism of said decoder;

said frame synchronism control section being adapted to maintain the synchronism of the transmission frames for switching the information channel to be used for signal reception among the channels connected for transmission in the case of receiving OFDM signals of frequency domains of a plurality of information channels multiplexed in a direction of frequency and collectively subjected to an operation of inverse Fourier transform for connected transmission.

2. An OFDM receiving device for receiving an orthogonally frequency divided and multiplexed comprising:

an OFDM receiving device comprising a receiver for selecting an information channel to be received and receiving an RF signal of the selected information channel;

an orthogonal demodulator for orthogonally demodulating the signal received by said receiver and outputting the OFDM signal of a base band;

a Fourier transform section for performing an operation of Fourier transform on said OFDM signal of the base band and outputting an OFDM signal of a frequency domain;

a decoder for decoding said OFDM signal of the frequency domain;

a control section for controlling said Fourier transform section and said decoder; and

said OFDM signal of the base band containing information on connected transmission indicating whether the OFDM signal to be transmitted to an information channel and the OFDM signal to be transmitted to other information channels are transmitted in a connected state by multiplexing the OFDM signals of the frequency domain of a plurality of the information channel in a direction of the frequency and performing an inverse Fourier transform on the multiplexed OFDM signals collectively,

said control section being adapted to determine whether the information

channel being used for signal reception is coupled to the information channel to be selected for signal reception by switching by referring to said information on connected transmission.

3. The OFDM receiving device according to claim 2, wherein said control section maintains the synchronism of the transmission frames when the newly selected information channel is connected with the previously selected information channel.

4. An OFDM receiving method for receiving orthogonally frequency divided and multiplexed signals comprising a step of maintaining the synchronism of the transmission frames for switching the information channel to be used for signal reception among the channels connected for transmission in the case of receiving OFDM signals of frequency domains of a plurality of information channels multiplexed in a direction of frequency and collectively subjected to an operation of inverse Fourier transform for connected transmission.

5. An OFDM receiving method for receiving orthogonally frequency divided and multiplexed signals comprising the steps of;

receiving the OFDM signal of the base band containing information on connected transmission indicating whether the OFDM signal to be transmitted to an information channel and the OFDM signal to be transmitted to other information channels are transmitted in a connected state by multiplexing the

OFDM signals of the frequency domain of a plurality of the information channels in a direction of the frequency and performing an inverse Fourier transform on the multiplexed OFDM signals collectively; and

of determining whether the information channel being used for signal reception is coupled to the information channel to be selected for signal reception by switching being determined by referring to the information on the connected transmission.

6. The OFDM receiving method according to claim 5, wherein the synchronism of the transmission frames is maintained when the selected information channel is connected with the previously selected information channel.